

WHAT IS CLAIMED IS:

1. An electrodeless fluorescent lamp comprising:

a luminous bulb in which mercury in a liquid state is enclosed as a light emitting substance and which includes a cavity portion;

5 an induction coil which is inserted into the cavity portion and generates an electromagnetic field for generating electric discharge in the luminous bulb;

a ballast circuit electrically connected to the induction coil; and

a luminophor layer which is provided on the inner surface of the luminous bulb and converts light radiated from the mercury to visible light,

10 wherein a manganese-activated deep red luminescent substance ($3.5\text{MgO} \cdot 0.5\text{MgF}_2 \cdot \text{GeO}_2 \cdot \text{Mn}^{4+}$) is contained only in part of the luminophor layer provided on a surface of the cavity portion facing the inner surface of the luminous bulb.

2. The electrodeless fluorescent lamp of claim 1, further comprising a base

15 electrically connected to the ballast circuit,

wherein the luminous bulb, the ballast circuit and the base are formed as a unit.

3. The electrodeless fluorescent lamp of claim 1, wherein the induction coil includes a core and a winding provided around the core.

20